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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,036	07/21/2005	Yasuyuki Goto	20441/0202715-US0	8433
7278	7590	12/06/2006	EXAMINER GARRETT, DAWN L	
DARBY & DARBY P.C. P. O. BOX 5257 NEW YORK, NY 10150-5257			ART UNIT 1774	PAPER NUMBER

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/543,036

Applicant(s)

GOTO ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-30 and 39-42 is/are rejected.
- 7) ☒ Claim(s) 31-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6-16-06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to the response filed September 25, 2006. No claims were amended. Claims 11-42 are pending.
2. The amendment of the specification received September 25, 2006 is acknowledged.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. The declaration filed on September 25, 2006 under 37 CFR 1.131 is sufficient to overcome the Seo et al. (US 2002/0101154 A1) reference.
5. The rejection of claims 11-30 and 39-42 under 35 U.S.C. 102(b) as being anticipated by Tokito et al. (US 5,783,292) is maintained. Tokito et al. discloses electroluminescent devices with organic-inorganic composite thin films (see title and abstract). The inorganic compound of the mixed organic-inorganic composite light emitting layer is made of metal fluorides (see col. 4, lines 28-30). This teaching encompasses all metal fluorides including transition metals, alkaline earth metals, and rare earth metals. D.C. voltage is the type of voltage used with the devices (see col. 11, line 10) per claim 12.
6. The rejection of claims 11-22 and 27-34 under 35 U.S.C. 102(b) as being anticipated by or in the alternative, under 35 U.S.C. 103(a) as obvious over Liang et al. (US 5,871,579) is withdrawn.
7. The rejection of claims 11-22 under 35 U.S.C. 102(e) as being anticipated by Seo et al. (US 2002/0101154) is withdrawn due to the declaration under 37 CFR 1.131.
8. The rejection of claims 19-26 and 39-42 under 35 U.S.C. 103(a) as being unpatentable over Tokito et al. (US 5,783,292) is maintained. Tokito et al. is relied upon as set forth above and

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clearly discloses metal fluorides as the inorganic component. In the alternative that Tokito et al. is not sufficient to anticipate an alkaline earth metal fluoride, rare earth fluoride, transition metal fluoride or a combination of these as the inorganic material. It would have been obvious to one of ordinary skill in the art to have used any of these fluorides and in combination as the metal fluoride, because alkaline earth metal fluoride, rare earth fluoride, and transition metal fluoride are metal fluorides and all would be expected to be suitable for the Tokito et al. luminescent layer.

9. Claims 11-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Baldo et al. (US 6,097,147). Baldo et al. teaches an electroluminescent device comprising a mixed layer of organic compound CBP [4,4'-bis(carbazol-9-yl)biphenyl] and platinum complex "PtOEP" (see figure 3). Platinum is considered to be a transition metal. Figure 5 shows application of current to the devices per claim 12. The example describes the PtOEP layer as changing the light that is emitted (see col. 6, lines 5-30).

Allowable Subject Matter

10. Claims 31-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art is discussed in this Office action. The prior art fails to teach or to render obvious an organic-inorganic dispersed composite layer comprising both 4,4'-bis(carbazol-9-yl)biphenyl and at least one of the recited halides. The halides of claims 31-34 are also not recited or rendered obvious by the prior art as a dispersed inorganic material.

Response to Arguments

11. Applicant's arguments filed September 25, 2006 have been fully considered but they are not persuasive.

With regard to Tokito (US 5,783,292), applicant argues Tokito does not disclose the "inorganic dispersed in organic" element. It appears that applicant is arguing that Tokito comprise more organic material than inorganic material in the layer and for that reason it is not a dispersion as set forth in the claims. The examiner submits that applicant has not claimed a particular amount of inorganic material versus organic material. The claims have been given the broadest interpretation wherein a dispersion is a composition or mixture.

Applicant further argues with regard to Tokito that Tokito does not teach or suggest that a change in luminescent color is effected by forming the dispersion. The examiner submits that Table 2 in col. 11 shows that the amount of inorganic material versus organic material affects luminance emitted by the devices. One of the example devices emits more intense color than the other. Applicant may intend for the limitation regarding a change in color to mean a different wavelength is emitted; however, the claims are not specifically limited to such an interpretation. Applicant has discussed the example at column 12, lines 42-29 where Tokito describes a layer of magnesium fluoride and perylene as emitting the same color as perylene. This example only generally describes the light emitted as yellow. It is not clear from this example that the exact same wavelength of light is emitted from the magnesium fluoride/perylene layer as compared to only perylene. Furthermore, this example is not considered commensurate in scope with the claims. The claims are more broad than the specific example discussed by applicants. Accordingly, the rejections over Tokito are respectfully maintained at this time.

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The arguments over Liang and Seo are now moot, since the rejections over Liang and Seo have been withdrawn.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DAWN GARRETT
PRIMARY EXAMINER
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